

Teacher Resources

The Department of Conservation has a variety of resources for your classroom. Here are a few items that may be helpful to you.

Outdoors in Missouri-Fall poster:

Be sure to order a set of our seasonal posters. The Fall poster features colors of the changing leaves.

Season of Splendor is a poster about fall color. Illustrations help explain changing colors in leaves. The poster opens up to a beautiful fall scene for the class to enjoy.

My First Nature Video is a great way to introduce the wonders of nature. It includes 12 activities that immerse children in the natural sciences—from the birds in the air to the worms beneath your feet. You can borrow this video from our Media Library.

To order any of these materials or to receive the Conservation Education Materials Request Form and Media Loan List, write to:

Distribution Center
Missouri Department of Conservation
P.O. Box 180
Jefferson City, MO 65102-0180

Missouri Department of Conservation
P.O. Box 180
Jefferson City, MO 65102-0180

Do Not Forward-Address Cor-Return Guar

BULK RATE
U.S. POSTAGE PAID
MO Dept Of Conservation

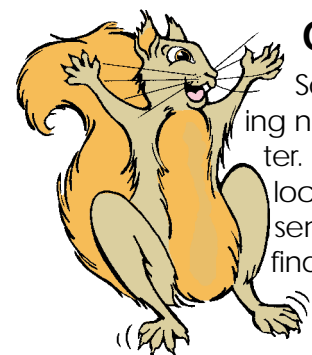
Conservation TEACHER

Welcome back to the Department of Conservation's kindergarten, first and second grade newspapers. Student newspapers are designed with seasonal themes and use conservation education to meet the Show-Me Frameworks. Newspapers come out in October (Fall), December (Winter), February (Spring) and April (Summer).

The new teacher editions provide additional background information to facilitate class discussion, extra activities, related children's literature and Department of Conservation education resources. We're glad your're with us this year!

Woollyworm

kindergarten newspaper



Go Nuts!

Squirrels are busy in the fall gathering nuts to help them survive the winter. They bury nuts in the ground. To locate them later, squirrels use their sense of smell. The nuts they don't find sprout and become trees.



Acorns: A very abundant nut and probably one of wildlife's most important foods. The native Americans roasted acorns from the white oak, hulled them and ground them into a coarse meal for baking bread.



Hickory nuts: Wood ducks, ring-necked pheasants, quail and wild turkeys compete with man for these nutritious nuts. Black bears, squirrels and rabbits eat both nuts and bark, while white-tailed deer enjoy the nuts and young twigs from the tree.



Walnuts: Red-bellied woodpeckers and squirrels eat the nuts, while beavers eat the bark. The sweet, oily kernels are eaten by humans, too. Walnuts add flavor to cakes, candies and salads with their strong and distinctive taste.

LEAF CREATURES

Ask the students to bring in leaves, bark and sticks. Press the leaves for a few days. Have them use the items they brought to design a creature, real or imaginary.

I'm a Little Fox Squirrel

Teach students the following song to the tune of "I'm a Little Teapot."

I'm a little fox squirrel, red and brown.
(Put hands behind back like a squirrel tail)
I eat nuts that I have found.
(Pretend to eat nut)
I pick them up and bury them deep.
(Pretend to pick up nuts and bury them)
When winter comes I'll have nuts to eat.
(Rub tummy)

APPLICATION

Bonus activities for school or home

Have students look at leaves on their ride home from school. How many different kinds did they see?

Tell students to take a nature walk. Using a strip of masking tape, they can make a bracelet with sticky-side out. Tell them to watch along the trail for leaves to collect and attach to their bracelet.



October
1999

BATS

Bats are nocturnal mammals that hibernate in winter because their food source, insects, are gone. Some bats migrate. Other bats hibernate. They hibernate in caves, barns, large hollow trees, attics and abandoned buildings.

Gray bats live in caves throughout the year. Indiana bats spend the winter in caves and the summer roosting under tree bark where they raise their young (called a nursery).

Disturbance by people in summer can disrupt nurseries and the baby bats may fall and die. While in winter, interruptions may awaken sleeping bats and make them too weak to survive until spring.

Definitions for discussion

Echolocation: The determination, as of a bat, of the position of an object by the emission of sound waves which are reflected back to the sender as echoes.

Hibernation: A state of winter dormancy among certain organisms, especially animals, associated with reduced respiration and other physiological functions.

Nocturnal: Active or functioning at night; such as animals that are active at night or plants that blossom at night.

Predator: An animal that lives by capturing and devouring other animals.

LOOKING
AHEAD

Winter issues will feature the following topics:

WOOLYWORM (K) focuses on otters and animals preparing for winter.

TADPOLE (1) covers bird silhouettes, feathers and feeders.

CRAWDAD (2) is on eagles and rivers.



CAVE SEARCH

Raccoons, crickets, bats, salamanders and fish make caves their homes. Have students count, tally and color as you discuss these animals with them.

Cave animals can be classified by their level of adaptation to caves. A few are true cave dwellers (TROGLOBITES) that live only in caves. Some are considered "cave lovers" (TROGLOPHILES) because they can (and often do) complete their life cycle in a cave; however, they may also live in suitable habitats outside of caves. Others are cave visitors (TROGLOXENES) which enter caves but must return periodically to the surface for some living requirements, often food.



Explain to students that although caves were often used in the past, today we discourage their use. Many people study caves, but it is considered best to leave wild caves alone so their development is not disrupted. To see cave formations you can visit one of Missouri's many commercial caves.

The cave salamander looks like a Halloween leftover with its orange skin and black spots. The larva can often be found around cave springs and entrances. The larva is called a cave lover. The adult is a cave lover, too, and is usually found in the cave entrance or far back in a cave.

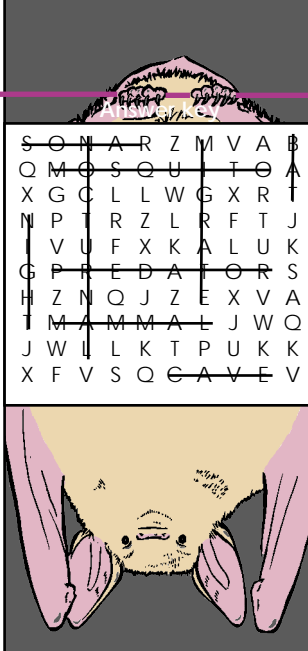


APPLICATION

Bonus activities for school or home

Tell students to go outside at night and watch for bats. Where do they think they will find bats? What are bats doing at night?

Have students make a cave mural. What animals will they put in it? Where in the cave do they think the animals will be? Why?

Duck, Duck,
GOOSE

Have students find hidden ducks in the picture. How many can they count?



SKY HIGH SCRAMBLE

Have students unscramble the words. They can look for matching words in the word bank. Discuss how each word relates to birds.

River: Birds often follow the rivers to find food and water and also to use the rivers like a roadmap.

South: Migrations to most folks, means that the birds are "going south." That doesn't always mean that they head for the tropics. Some birds don't migrate any farther south than Missouri, and some birds don't migrate at all.

Migrate: Some birds move from one region to another with the change in seasons.

Navigate: Birds make their way or follow their course when they migrate in the fall.

FLYWAY

HIGHWAY

Flyways are the routes that migrating birds follow each year. The birds follow these paths from their breeding grounds to their wintering areas. Flyways often follow rivers or other landforms where birds can find places to eat



APPLICATION

Bonus activities for school or home

Take a trip to a wetland area to see birds that may be migrating through your area.

Watch your hummingbird feeder in the fall. You may see other species of hummingbirds migrating through and stopping to eat.

and rest. The Mississippi Flyway passes through Missouri.

Some of the waterfowl following these paths fly in a characteristic "V"-formation. The "V"-formation is a wonderful way to make the flight easier on the birds. The lead bird helps reduce air resistance for those birds flying behind. From time to time they switch places, relieving the lead bird.

Children's
LITERATURE

A Tree is Nice, by Janice May Udry

The Giving Tree, by Shel Silverstein

Squirrels, by Brian Wildsmith

Why Do Leaves Change Color, by Betsy Maestro

Freddy Fox Squirrel, by R.W. Eschmeyer

Stella Luna, by Jannell Cannon

Magic School Bus, Going Batty, from Scholastic

Every Autumn Comes the Bear, by Jim Arnosky

Newsletter
CONSERVATION & ENVIRONMENTAL
EDUCATION

The Resource will keep you in-the-know for conservation and environmental education in Missouri.

LOOK FOR THE DECEMBER ISSUE:

- Workshops, courses and conferences
- Projects WILD/Learning Tree/WET/LEP updates
- Teacher Guide for *Outside In* and much more!

There is no charge for the newsletter. If you would like to subscribe to **The Resource** write to: The Resource, Missouri Department of Conservation, P.O. Box 180 Jefferson City, Mo 65102-0180 or e-mail <grayg@mail.conserva.state.mo.us>. Please provide your name, school, address, county, phone number and grade level.